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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/060,315	02/01/2002	Satoshi Ejima	032404.01	8567
7590	01/21/2005		EXAMINER	
OLIFF & BERRIDGE, PLC				JERABEK, KELLY L
P.O. Box 19928				
Alexandria, VA 22320				
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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/060,315	EJIMA ET AL.	
	Examiner Kelly L. Jerabek	Art Unit 2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on _____.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-51 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-51 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 09 April 2002 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. 08/972,678.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____.

DETAILED ACTION

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 14-17, 25, 28-30, 35, 37-38, and 49-51 rejected under 35 U.S.C. 102(e) as being anticipated by Matsumoto et al. US 5,796,428.

Re claim 1, Matsumoto discloses an information processing apparatus comprising:

Display means (Fig. 1, 113) for displaying at least one of image information, character information and graphical information (Figs. 25, 30);

Detection means (Fig. 26, image pickup, storage unit 104, attitude detector 2601 and clock 107) for detecting at least one of rotation and linear movement of the display means (col. 12, line 62 – col. 13, line 16);

Display changing means for changing a display content displayed by said display means according to at least one of rotation and linear movement of said display means as detected by said detection means (fig. 29, col. 3, lines 42-51; col. 13, lines 4-30).

Re claim 2, Matsumoto teaches that the detection means also photographs an image and detects at least one of rotation and linear movement of the display means based on a change in the photographed image over time (col. 3, lines 42-51; col. 7, line 24 – col. 8, line 62; col. 12, line 62 – col. 13, line 30).

Re claim 3, Matsumoto states that the detection means includes a means for converting light to electric signals (col. 8, lines 44-62).

Re claim 14, Matsumoto states that the apparatus is an electronic camera (col. 7, lines 24-56; col. 8, lines 28-62).

Re claim 15, Matsumoto discloses an information processing apparatus comprising:

A display (Fig. 1, 113) for displaying at least one of image information, character information and graphical information (Figs. 25, 30);

A detector (Fig. 26, image pickup, storage unit 104, attitude detector 2601 and clock 107) that detects at least one of rotation and linear movement of said display means (col. 12, line 62 – col. 13, line 16);

A display controller coupled to the display and to the detector to change a display content displayed by the display according to at least one of rotation and linear movement of the display as detected by the detector (fig. 29, col. 3, lines 42-51; col. 13, lines 4-30).

Re claim 16, Matsumoto states that the detector is a photoelectric converter that photographs an image and detects at least one of rotation and linear movement of the display based on a change in the photographed image over time (col. 3, lines 42-51; col. 7, line 24 – col. 8, line 62; col. 12, line 62-col. 13, line 30).

Re claim 17, Matsumoto states that the photoelectric converter includes a charge-coupled-device (CCD 203, col. 8, lines 44-48).

Re claim 25, Matsumoto states that the display controller rotates the display contents by a specified angle when rotation around an axis perpendicular to a screen of the display is detected by the detector (Fig. 29, col. 13, lines 4-25).

Re claim 28, Matsumoto states that the apparatus is an electronic camera (col. 7, lines 24-56; col. 8, lines 28-62).

Re claim 29, see claim 1.

Re claim 30, see claim 2.

Re claim 35, Matsumoto states that the display contents are changed by rotating the display contents displayed on the display by a specified angle when rotation around a specified axis is detected (Fig. 29, col. 13, lines 4-25).

Re claim 37, the orientation of an image capturing unit is detected (col. 13, lines 1-25). The image capturing unit includes the display (305) (col. 9, lines 6-67). Therefore, it can be seen that the electronic device is the display.

Re claim 38, Matsumoto states that the electronic device is a digital camera (col. 7, lines 24-56; col. 8, lines 28-62).

Re claim 49, Matsumoto discloses an information processing apparatus comprising:

A display (Fig. 1, 113) for displaying at least one of image information, character information and graphical information (Figs. 25, 30);

A detector (Fig. 26, image pickup, storage unit 104, attitude detector 2601 and clock 107) that detects at least one of rotation and linear movement of said display means (col. 12, line 62 – col. 13, line 16);

A display controller coupled to the display and to the detector to change a display content displayed by the display according to at least one of rotation and linear movement of the display as detected by the detector (fig. 29, col. 3, lines 42-51; col. 13, lines 4-30).

Re claim 50, Matsumoto states that the electronic device is a digital camera (col. 7, lines 24-56; col. 8, lines 28-62).

Re claim 51, Matsumoto states that the electronic device is a device that stores at least one of image information, character information and graphical information (col. 7, line 57 – col. 8, line 27; col. 12, line 62 – col. 13 line 30).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 39-40, 45, and 47-48 rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto et al.

Re claim 39, Matsumoto states that an information processing apparatus performs the steps of displaying at least one of image information, character information and graphical information (Figs. 25 and 30) on a display (Fig. 1, display 113); detecting at least one of rotation and linear movement of an electronic device (col. 12, line 62 – col. 13, line 16); changing a display content according to the detected at least one of rotation and linear movement of the electronic device (Fig. 29, col. 3, lines 42-51; col. 13, lines 4-30). Claim 39 differs from Matsumoto in that the claim requires a recording medium that stores a computer-readable control program which is executable by a controller of the information processing apparatus. Although Matsumoto does not explicitly teach a recording medium for storing an executable computer-readable program for the information processing apparatus to perform the above claimed steps, Matsumoto teaches that the image recording/reproducing apparatus is controlled by the microprocessors of the image storage/display unit, e.g., controllers 111/112 (see col. 7, line 24 – col. 8, line 43; col. 9, lines 23-48). For the purpose of enhancing or updating the microprocessors' functions, it is well known in the art that microprocessors are downloaded with computer readable and executable programs which are stored in various recording mediums. Thus, it would have been obvious that one of ordinary skill in the art would modify the image recording and reproducing apparatus taught in

Matsumoto to be provided with the computer readable programs which are executable by the microprocessors 111/112 so as to allow functions of these microprocessors to be updated or enhanced.

Re claim 40, Matsumoto states that the detecting step includes photographing an image and detecting at least one of rotation and linear movement based on a change in the photographed image over time (col. 3, lines 42-51; col. 7, line 24 – col. 8, line 62; col. 12, line 62 – col. 13, line 30).

Re claim 45, Matsumoto states that the display contents are changed by rotating the display contents displayed on the display by a specified angle when rotation around a specified axis is detected (Fig. 29, col. 13, lines 4-25).

Re claim 47, the orientation of an image-capturing unit is detected (col. 13, lines 1-25). The image-capturing unit includes the display (305) (col. 9, lines 6-67). Therefore, it can be seen that the electronic device is the display.

Re claim 48, Matsumoto states that the electronic device is a digital camera (col. 7, lines 24-56; col. 8, lines 28-62).

Claims 4-8, 18-22, 31-32, and 41-42 rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto et al. in view of Gordon et al. US 5,884,867.

Re claims 4-6, 18-20, 31-32, and 41-42, these claims differ from Matsumoto in that the claims further require that the detection means includes a piezoelectric gyroscope that detects the rotation of the display means based upon detection of an angular velocity of the display means with respect to two axes. Although Matsumoto does not specifically teach a piezoelectric gyroscope for detecting the angular velocity of the display means with respect to two axes, Matsumoto does teach an attitude detector that provides attitude attribute data of the image data to be displayed on the display (col. 2, lines 24-32; col. 3, lines 43-1; col. 12, line 62 – col. 13, line 36).

Gordon teaches a photographic system including a line/area scanner camera (40), wherein motion of the camera is detected by a conventional gyroscope or any directional or angular velocity sensor (col. 4, line 5 – col. 5, line 4). Therefore, it would have been obvious for one skilled in the art to have been motivated to modify the information processing apparatus disclosed by Matsumoto by providing a gyroscope for detecting the rotation of the display means based upon detection of an angular velocity of the display means with respect to two axes, as taught by Gordon, so as to accurately provide the display's location in two dimensions.

Re claims 7-8 and 21-22, Gordon states that the control loop for the camera (40) includes a compass (58) and a rotation gauge (59) (col. 4, line 60 – col. 5, line 4). Therefore, it can be seen that the combination of Matsumoto and Gordon teaches that a detecting means includes an electronic compass for detecting the rotation of the display

based on a change in bearing information detected for the display means of the camera over time.

Claims 9 and 23 rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto et al. in view of Parulski et al. US 5,900,909.

Re claims 9 and 23, Matsumoto teaches a photoelectric converter (Fig. 2, CCD 203) that generates a photographic image of a photographic object (col. 8, lines 44-62); a memory (Fig. 1, storage unit 104) that stores the photographic image generated by the photoelectric converter (col. 8, line 63 – col. 9, line 22), and wherein the display controller is coupled to the photoelectric converter and to the memory to control imaging of the photographic object by the photoelectric converter and storage of the photographic image in the memory (col. 7, line 24 – col. 8, line 43). Claims 9 and 23 differ from Matsumoto in that the claims require the controller changes the display content based on photographic images that are not stored in the memory.

Parulski discloses an electronic camera including a display 34 and camera controllers (Fig. 2: 36, 38) wherein the controller changes the display content (orientation) based on captured images that are not stored in the memory (Figs. 3-4; col. 3, line 18 – col. 4, line 26; col. 5, line 40 – col. 6, line 5). Therefore, it would have been obvious for one skilled in the art to have been motivated to modify the image processing apparatus of Matsumoto by allowing the controller to change the display content based on photographic images that are not stored in the memory. Doing so

would provide a means for storing each image in a memory in its proper orientation (Parulski: col. 5, lines 51-60).

Claims 10, 13, 26-27, 33, 36, 43, and 46 rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto et al. in view of Petruchik et al. US 5,619,738.

Re claims 10, 27, 33, and 43, these claims differ from Matsumoto in that the claims further require the display changing means changes a magnification amount of the contents displayed on the display means when the detection means detects movement of the display means in a direction along an optical axis of the detection means.

Petruchik discloses an electronic image display (Figs. 3-4 including an LCD (48) wherein the captured images are zoomed and cropped when panning, tilting or horizontal/vertical orientation is provided to the display (col. 4, line 46 – col. 6, line 26). Therefore, it would have been obvious for one skilled in the art to have been motivated to modify the information processing apparatus shown in Matsumoto by allowing the display changing means to change a magnification amount of the contents displayed on the display when the detection means detects movement of the display means in a direction along an optical axis of the detection means as disclosed by Petruchik. Doing so would provide a means for cropping an image by zooming the image while panning the camera (Petruchik: col. 5, lines 5-8).

Re claims 13, 26, 36, and 46, Matsumoto, as modified by Petruchik, teaches that the display changing means scrolls the contents displayed on the display means in a specific direction when rotation around a specified axis parallel to the screen of the display means is detected by the detection means (Petruchik: col. 4, line 46 – col. 6, line 26).

Claims 11-12, 34, and 44 rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto et al. in view of Kawamura et al. US 5,576,759.

Re claims 11, 34, and 44, these claims differ from Matsumoto in that the claims further require prevention means for preventing the display changing means from changing the contents displayed on the display means when either the rotation or linear movement of the display means is detected by the detection means.

Kawamura discloses a digital camera including an imaging unit (101), an attitude detection sensor (13), and a control unit (104) (see Figs. 1-2). Kawamura further states that the images are rotated based on the output from the attitude detection sensor (Figs. 6-7; col. 7, line 8 - col. 8, line 37). Kawamura also teaches an attitude classification switch (14b), wherein when the switch (14b) is not in operation, captured images are not rotated and grouped in order of photography (col. 7, lines 43-59). Therefore, it would have been obvious for one skilled in the art to have been motivated to modify the information processing apparatus of Matsumoto by providing prevention means for preventing the display changing means from changing the contents displayed on the

display means when either the rotation or linear movement of the display means is detected by the detection means as disclosed by Kawamura. Doing so would provide a means for recording images to memory without changing the orientation based on rotation of the camera (Kawamura: col. 7, lines 44-59).

Re claim 12, Matsumoto states that the display changing means rotates the display contents displayed on the display in a specific direction when rotation around a specified axis parallel to a screen of the display means is detected by the detection means (Fig. 29; col. 13, lines 4-25).

Claim 24 rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto et al. in view of Parulski et al. and further in view of Kawamura et al.

Re claim 24, this claim differs from the combination of Matsumoto and Parulski as applied to claim 23 in that the claim further requires prevention means for preventing the display changing means from changing the contents displayed on the display means when either the rotation or linear movement of the display means is detected by the detection means.

Kawamura discloses a digital camera including an imaging unit (101), an attitude detection sensor (13), and a control unit (104) (see Figs. 1-2). Kawamura further states that the images are rotated based on the output from the attitude detection sensor (Figs. 6-7; col. 7, line 8 - col. 8, line 37). Kawamura also teaches an attitude classification

switch (14b), wherein when the switch (14b) is not in operation, captured images are not rotated and grouped in order of photography (col. 7, lines 43-59). Therefore, it would have been obvious for one skilled in the art to have been motivated to modify the information processing apparatus disclosed by Matsumoto in view of Parulski by providing prevention means for preventing the display changing means from changing the contents displayed on the display means when either the rotation or linear movement of the display means is detected by the detection means as disclosed by Kawamura. Doing so would provide a means for recording images to memory without changing the orientation based on rotation of the camera (Kawamura: col. 7, lines 44-59).

Contacts

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kelly L. Jerabek whose telephone number is 703-305-8659. The examiner can normally be reached on Monday - Friday (8:00 AM - 5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber can be reached on 703-305-4929. The fax phone number for submitting all Official communications is 703-872-9306. The fax phone number for submitting informal communications such as drafts, proposed amendments, etc., may be faxed directly to the Examiner at 703-746-3059.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KLJ


WENDY R. GARBER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600